CLAIMS

1. A method for the purification of a virus from a host cell, said method comprising in the given order the steps of:
   a) culturing host cells that are infected with a virus,
   b) adding nuclease to the cell culture, and
   c) lysing said host cells to provide a lysate comprising the virus.

2. A method according to claim 1, said method further comprising:
   d) clarification of the lysate.

3. A method according to claim 1 or claim 2, said method further comprising:
   e) further purifying the virus with at least one chromatography step.

4. A method according to any one of claims 1-3, wherein said virus is a recombinant adenovirus.

5. A method according to any one of claims 1-4, wherein the nuclease of step b) is Benzonase.

6. A method according to any one of claims 1-5, wherein step c) of lysing the host cells is performed with a detergent.

7. A method according to claim 6, wherein the detergent is Triton-X100.

8. A method according to any one of claims 2-7, wherein step d) comprises depth filtration and membrane filtration.

9. A method according to claim 8, wherein the membrane filtration is performed using a combination of 0.8µm and 0.45 µm filters.

10. A method according to any one of claims 3-9, wherein prior to step e) the clarified lysate is subjected to ultrafiltration and/or diafiltration.

11. A method according to claim 10, wherein the clarified lysate that is subjected to diafiltration is exchanged against a solution comprising 0.8-2.0 M NaCl, preferably about 1 M NaCl, or another salt providing an equivalent ionic strength.

12. A method according to any one of claims 4-11, wherein step e) comprises anion exchange chromatography.

13. A method according to claim 12, wherein said anion exchange chromatography is performed using a charged filter comprising anion exchange groups.

14. A method according to any one of claims 4-13, wherein step e) comprises size exclusion chromatography.

15. A method according to any one of claims 4-14, wherein step e) comprises:
e,i) anion exchange chromatography, and
e,ii) size exclusion chromatography.

16. A method according to claim 15, wherein the mixture containing the recombinant adenovirus is buffer exchanged with a solution comprising at least 2 M NaCl, or another salt providing an equivalent ionic strength, between said steps of anion exchange chromatography and size exclusion chromatography.

17. A process according to any one of claims 4-16, wherein the buffers used in steps d) and subsequent steps are free of detergent, magnesiumchloride and sucrose.

18. A method for the purification of a virus that is capable of lysing host cells, said method comprising the steps of:
a) culturing host cells comprising said virus capable of lysing host cells,
b) harvesting virus following their release into culture fluid without addition of an external lysis factor, characterized in that a nuclease is added to the culture before 95% of the host cells has been lysed.

19. A method for the production of a virus comprising a nucleic acid sequence coding for a nucleoprotein of a heamorrhagic fever virus, comprising the steps of:
a) culturing host cells that have been infected with said virus,
b) subjecting said culture of host cells comprising said virus to lysis of the host cells to provide a lysate comprising said virus,
c) subjecting the virus to anion exchange chromatography, characterized in that after anion exchange chromatography the virus containing mixture is buffer exchanged with a

solution comprising at least 1 M NaCl, or another salt providing an equivalent ionic strength and/or with a solution comprising at least 1% of a detergent.

20. A method according to claim 19, wherein the virus containing mixture is buffer exchanged at least once with a solution comprising at least 1 M NaCl, or another salt providing an equivalent ionic strength.

21. A method according to claim 19 or claim 20, wherein said virus is a recombinant adenovirus.

22. A method according to any one of claims 19-21, wherein said heamorrhagic fever virus is Ebolavirus.

23. A method according to any one of claims 20-22, wherein said solution comprises at least 1.5 M NaCl, or another salt providing an equivalent ionic strength.

24. A method according to claim 23, wherein said solution comprises at least 2 M NaCl, or another salt providing an equivalent ionic strength.

25. A method according to claim 24, wherein said solution comprises at least 3 M NaCl, or another salt providing an equivalent ionic strength.

26. A method according to claim 25, wherein said solution comprises about 5 M NaCl, or another salt providing an equivalent ionic strength.

27. A method according to any one of claims 19-26, further comprising filtering the virus containing mixture that is buffer exchanged through a hydrophilic filter with a pore size of 1.2 µm or less.

28. A method according to claim 27, wherein said pore size is about 0.45 µm or about 0.22 µm.

29. A method according to any one of claims 19-28, further comprising subjecting the virus containing mixture that is buffer exchanged to size exclusion chromatography.

30. A method for removing free adenovirus proteins from a recombinant adenovirus preparation, comprising the step of: subjecting a recombinant adenovirus preparation comprising free adenovirus proteins to a charged filter that contains anion exchange groups.

31. A method according to claim 30, wherein said recombinant adenovirus preparation comprises a subgroup B recombinant adenovirus.

32. A method according to claim 30 or claim 31, wherein said recombinant adenovirus is an Ad35 recombinant adenovirus.